Chapter 06 Safety 2 **Policy** Firefighter and public safety is our first priority. All Fire Management Plans and activities must reflect this commitment. The commitment to and accountability for safety is a joint responsibility of all firefighters, managers, and administrators. Individuals must be responsible for their own performance and accountability. 10 Safety comes first on every fire, every time. 11 12 The Standard Fire fighting Orders are firm. "We don't break them, we don't 13 bend them. All firefighters have the right to a safe assignment". (Federal Wildland Fire Management Policy, January, 2001) 15 16 Every supervisor, employee, and volunteer is responsible for following safe 17 work practices and procedures, as well as identifying and reporting unsafe 18 conditions. 19 20 All firefighters, fireline supervisors, fire managers, and Agency Administrators 21 have the responsibility to ensure compliance with established safe firefighting 23 practices. 24 Attention to safety factors is critical to the individual employee incident position evaluation process. These evaluations must be honest appraisals of performances. The documentation of sub-standard or unsafe performances is 27 mandatory. 28 Agency Specific Safety Policy Guides: BLM - BLM Handbook 1112-1, 1112-2 31 FWS - Service Manual 241 FW7, Firefighting 32 NPS - DO-50 and RM-50 Loss Control Management Guideline 33 FS - FSH-6709.11 Health and Safety Code Handbook 34 35 Goal 36 The goal of the fire safety program is to provide direction and guidance for safe 37 and effective management in all activities. Safety is the responsibility of everyone assigned to wildland and prescribed fire, and must be practiced at all operational levels from the national fire director, state/regional director, and unit 40 manger - to employees in the field. Agency administrators need to stress that firefighter and public safety always takes precedence over property and resource loss. Coordination between the fire management staff and unit safety officer(s)

Release Date: January 2005

06-1

is essential in achieving this objective.

44 45

For additional safety guidance and reference refer to:

- Fireline Handbook (PMS 410-1, NFES 0065).
- Incident Response Pocket Guide (PMS 461, NFES 1077).
- Wildland Firefighter Health & Safety Report (MTDC Publication).
- National Interagency Mobilization Guide (NFES 2092).

Risk Management Process 7

The Risk Management Process identified in the NWCG Incident Response

Pocket Guide (IRPG) helps ensure that critical factors and risks associated with

fireline operations are considered during decision making. This process must be applied to all fire operations prior to taking action.

12

The Risk Management Process is found in Appendix E.

13 14

Job Hazard Analysis (JHA) 15

A completed Job Hazard Analysis is required for:

- Jobs or work practices that have potential hazards. 17
- New, non-routine, or hazardous tasks to be performed where potential 18 hazards exist. 19
- Jobs that may require the employee to use non-standard personal protective 20 equipment (PPE). 21
- Changes in equipment, work environment, conditions, policies, or 22 materials. 23
- Supervisors and appropriate line managers must ensure that established 24 JHAs are reviewed and signed prior to any non-routine task or at the 25 beginning of the fire season. Additional JHA information can also be 26 obtained at: www.fs.fed.us/r1/people/jha/jha_index_www.html. 27
- **BLM** A risk assessment (in leui of JHA) must be completed for all non-28 suppression work practices/projects that have potential hazards. 29

30

Work/Rest

31 To assist in mitigating fatigue, days off are allowed during and after assignments. If necessary to reduce fatigue, the Type 1/2 Incident Commander 33 (IC) or Agency Administrator (AA) (incident host or home unit) may provide time off supplementary to mandatory days off requirements. For Type 3-5 incidents, paid days off should be rare exceptions. However, if necessary, the Agency Administrator (incident host or home unit) may authorize day(s) off with pay. 38

39

41

The IC or AA authority to grant a day off with pay lies within 5 U.S.C. 6104, 5 CFR 610.301-306, and 56 Comp. Gen. Decision 393 (1977).

Plan for and ensure that all personnel are provided a minimum 2:1 work to 42 rest ratio (for every 2 hours of work or travel, provide 1 hour of sleep 43 and/or rest). 44

Release Date: January 2005

Work shifts that exceed 16 hours and/or consecutive days that do not meet the 2:1 work/rest ratio should be the exception, and no work shift should exceed 24 hours. However, in situations where this does occur (for example, initial attack), incident management personnel will resume 2:1 work/rest ratio as quickly as possible.

- The Incident Commander or Agency Administrator must justify work shifts that exceed 16 hours and those that do not meet 2:1 work to rest ratio. Justification will be documented in the daily incident records.

 Documentation shall include mitigation measures used to reduce fatigue.
- The Time Officer's/Unit Leader's approval of the Emergency Firefighter Time Report (OF-288), or other agency pay document, certifies that the required documentation is on file and no further documentation is required for pay purposes.

The work/rest guidelines do not apply to aircraft pilots assigned to an incident. Pilots must abide by applicable Federal Aviation Administration (FAA) guidelines, or agency policy if more restrictive.

Length of Assignment

20

10

11

12

13 14

15

17 18

19

21

22

24 25

27

Assignment Definition

An assignment is defined as the time period (days) between the first full operational period at the first incident or reporting location on the original resource order and commencement of return travel to the home unit.

Length of Assignment

Standard assignment length is 14 days, exclusive of travel from and to home unit, with possible extensions identified below. Time spent in staging and preposition status counts toward the 14-day limit, regardless of pay status, for all personnel, including incident management teams.

30 31 32

33

Days Off

After completion of a 14 day assignment and return to the home unit, two mandatory days off will be provided (2 after 14). State regulations may preclude authorizing this for State employees. Days off must occur on the calendar days immediately following the return travel in order to be charged to the incident. (See Section 12.1-2) (5 U.S.C. 6104, 5 CFR 610.301-306, and 56 Comp. Gen. Decision 393 (1977). If the next day(s) upon return from an incident is/are a regular work day(s), a paid day(s) off will be authorized.

39 40 41

44

45

38

Pay entitlement, including administrative leave, for a paid day(s) off cannot be authorized on the individual's regular day(s) off at their home unit. Agencies will apply holiday pay regulations, as appropriate. A paid day off is recorded on home unit time records according to agency requirements. Casuals (AD) are not entitled to paid day(s) off upon release from the incident or at their point of hire.

Contract resources are not entitled to paid day(s) off upon release from the incident or at their point of hire.

Home unit Agency Administrators may authorize additional day(s) off with compensation to further mitigate fatigue. If authorized, home unit program funds will be used.

All length of assignment rules apply to aviation resources, including aircraft pilots, notwithstanding the FAA and Agency day off regulations.

10

11

12

13

15

17

18

Assignment Extension

Prior to assigning incident personnel to back-to-back assignments, their health, readiness, and capability must be considered. The health and safety of incident personnel and resources will not be compromised under any circumstance.

Assignments may be extended when:

- life and property are imminently threatened,
- ▶ suppression objectives are close to being met,
- a military battalion is assigned,
- replacement resources are unavailable, or have not yet arrived.

19 20 21

22

23

Upon completion of the standard 14 day assignment, an extension of up to an additional 14 days may be allowed (for a total of up to 30 days, inclusive of mandatory days off, and exclusive of travel). Regardless of extension duration, two mandatory days off will be provided prior to the 22nd day of the assignment.

25 26 27

28

29

Contracts and Emergency Equipment Rental Agreements (EERA) should be reviewed for appropriate pay requirements and length of assignment. If the contract or EERA do not address, the incident Finance/Administration Section Chief or the procurement official should be consulted as to whether compensation for a day off is appropriate.

31 32 33

Single Resource/Kind Extensions

The Section Chief or Incident Commander will identify the need for assignment 34 extension and will obtain the affected resource's concurrence. The Section 35 Chief, and affected resource will acquire and document the home unit supervisor's approval. 37

38

The Incident Commander approves the extension. If a convened geographic or 39 national multi-agency coordinating group (GMAC/NMAC) directs, the Incident Commander approves only after GMAC/NMAC concurrence. 41

42

If the potential exists for reassignment to another incident during the extension, the home unit supervisor and affected resource will be advised and must concur 44 prior to reassignment. 45

Incident Management Team Extensions

- Incident management team extensions are to be negotiated between the incident
- 3 Agency Administrator, the Incident Commander, and the GMAC/NMAC (if
- 4 directed)

5

10

11

- Upon release from the assignment, regardless of extension duration, two mandatory days off will be provided immediately following the return to the
- 8 home unit and are chargeable to the incident. (See above for compensation and
- 9 days off guidelines).

Detail Assignments

Agencies may enter into agreements to provide personnel for extended periods of time to meet staffing needs. This may be done through an interagency agreement or though the use of the Preparedness/Detail Request. A detail assignment in this context does not require a formal personnel action. Personnel on a detail assignment are compensated under normal regulations including pay for travel, overtime, and per diem. Personnel are under their normal tour of duty, unless this has been changed between agreement of the requesting unit and home unit. Personnel are not considered to be on an assignment and are not compensated for normal days off if not performing work.

21 22

Driving Standard

All employees driving motor vehicles are responsible for the proper care,
operation, maintenance and protection of the vehicle. The use of governmentowned, rented, or leased motor vehicles is for official business only.
Unauthorized use is prohibited.

27

29

31

32

General Driving Policy

- Employees must have a valid state driver's license in their possession for the appropriate vehicle class before operating the vehicle. Operating a government-owned or rental vehicle without a valid state driver's license could result in disciplinary action.
- All drivers whose job duties require the use of a motor vehicle will receive initial defensive driver training within three months of entering on duty and refresher driver training every three years thereafter.
- The operator and all passengers are required to wear seat belts and obey all federal and state laws.
- All traffic violations or parking tickets will be the operator's responsibility.
 - All driving requiring CDL will be performed in accordance with applicable Department of Transportation regulations.

44 45

Release Date: January 2005 06-5

BLM – All employees operating a Government motor vehicle will be
 required to submit Form DI-131 (Application for U.S. Government Motor
 Vehicle Operator's Identification Card) and OF-345 (Physical Fitness
 Inquiry for Motor Vehicle Operators). When the supervisor signs the DI-131, the employee is authorized to operate Government-owned or leased
 vehicles, or privately-owned vehicles on official business. Individual office
 forms equivalent to the OF-345 and DI-131 are acceptable.

FS - Policy requires all operators of government owned, or leased vehicles to have a Forest Service issued identification card indicating the type of vehicles or equipment the holder is authorized and qualified to operate.

11 12

Non-incident Operations Driving

13 Refer to the current Driving Standards for each individual agency.

14

16

17

20

21

22

23

31

32

33

34

Incident Operations Driving

This policy addresses driving by personnel actively engaged in wildland fire suppression or all-risk activities; including driving while assigned to a specific incident (check-in to check-out) or during initial attack fire response (includes time required to control the fire and travel to a rest location). Individual agency driving policies shall be consulted for all other driving.

- Agency resources assigned to an incident or engaged in initial attack fire response will adhere to the current agency work/rest policy for determining length of duty day.
- No driver will drive more than 10 hours (behind the wheel) within any duty-day.
- Multiple drivers in a single vehicle may drive up to the duty-day limitation
 provided no driver exceeds the individual driving (behind the wheel) time
 limitation of 10 hours.
- A driver shall drive only if they have had at least 8 consecutive hours off duty before beginning a shift.
 - Exception: Exception to the minimum off-duty hour requirement is allowed when essential to:
 - accomplish immediate and critical suppression objectives.
 - > address immediate and critical firefighter or public safety issues.
- As stated in the current agency work/rest policy, documentation of mitigation measures used to reduce fatigue is required for drivers who exceed 16 hour work shifts. This is required regardless of whether the driver was still compliant with the 10 hour individual (behind the wheel) driving time limitations.
- FWS/NPS Program funds are authorized to pay for the cost of CDL
 licensing fees and exams, necessary for employees to operate fire
 equipment, with one exception. That exception involves those cases where
 a test has been failed and must be retaken, in which case the employee will
 be responsible for costs associated with additional testing.

45

Fire Vehicle Operation Standards

- Operators of all vehicles must abide by state traffic regulations. Operation of all
- vehicles will be conducted within the limits specified by the manufacturer.
- 4 Limitations based on tire maximum speed ratings and Gross Vehicle Weight
- restrictions must be followed. It is the vehicle operator's responsibility to
- 6 ensure vehicles abide by these and any other limitations specified by agency or

7 state regulations.

Headlights and taillights will be illuminated at all times while the vehicle is in
 motion. Emergency lighting will not be used except when performing
 suppression or prescribed fire operations, or to mitigate serious safety hazards.

Overhead lighting and other americancy lighting must meet state and

Overhead lighting and other emergency lighting must meet state code

requirements, and will be illuminated whenever the visibility is reduced to less than 300 feet. Blue lights are not acceptable for wildland fire operations.

Personal Protective Equipment (PPE)

All personnel assigned on wildfires and prescribed fires are required to use Personal Protective Equipment (PPE) appropriate for their duties and/or as identified in JHAs. Employees must be trained to use safety equipment effectively.

 BLM – "PPE devices will be used only when equipment guards, engineering controls, or management control do not adequately protect employees."

Required PPE includes:

- 8-inch high, lace-type leather work boots with non-slip (Vibram type), melt resistant soles and heels. (Alaska Exempt) To measure boots for compliance with national policy (8" tall) the boot will be measured from the bottom of the heel to the top of the boot.
- 30 fire shelter

21

22

23 24

25

26

27

28

29

31

39

- hard hat with chinstrap
- goggles/safety glasses
- ear plugs/hearing protection
- yellow aramid shirts
- aramid trousers
 - leather gloves
- Wear additional PPE as identified by local conditions, material safety data
 sheet (MSDS), or JHA.

Permanent-press materials are not to be worn, as they melt and stick to the skin when exposed to flame or heat. Because most synthetic fibers melt when exposed to flame or extreme radiant heat, personnel should wear only undergarments made of 100 percent cotton or wool, aramid, or other fire resistant materials.

45

Release Date: January 2005 06-7

- Aramid clothing will be cleaned or replaced whenever soiled, particularly with
- oils. Aramid clothing will be replaced when the fabric is so worn as to reduce
- the fire resistance capability of the garment or is so faded as to significantly
- 4 reduce the desired visibility qualities. Any modification to personal protective
- equipment that reduces the fire retardant ability such as iron-on logos is an
- unacceptable practice and will not be allowed on fires. Due to the strength of
- aramid weave, stagging is generally ineffective. It also makes the pants
- 8 unsuitable for trade-in for clean pants or for return to the cache system.

9

Head Protection

- Personnel must be equipped with hard hats and wear them at all times while on
- 12 the fireline. Hard hats must be equipped with a chinstrap, which must be
- 13 fastened while riding in, or in the vicinity of, helicopters.
- Acceptable helmets for fireline use are "helmet, safety, plastic" (NFES 0109,
- 15 8415-01-055-2265/GSA) listed in NWCG National Fire Equipment System
- 16 Catalog: Fire Supplies and Equipment, or equivalent helmet meeting 1977
- 17 NFPA standard requirements and ANSI Z89.1-1986. Hard hats consist of two
- components the shell and the suspension which work together as a system.
- 9 Both components require periodic inspection and maintenance. Specific
- 20 inspection and maintenance instructions are found in an MTDC Tech Tip
- 21 publication (0267-2331-MTDC).

22 23

Eye and Face Protection

24 The following positions require the wearing of eye protection:

- nozzle operator
- ochainsaw operator/faller chainsaw operator/faller
 - helibase and ramp personnel
- s retardant mixing crews
- Other duties may require eye protection as identified in a specific JHA.

30

27

- Face shields providing full face protection must be worn when working in any position where face protection has been identified as required in the job specific
- 33 JHA: Terra-Torch®, power sharpener operators, etc.

34

35 Hearing Protection

- Personnel who are exposed to a noise level in excess of 85db must be provided with, and wear, hearing protection. This includes, but is not limited to:
 - chainsaw operators/fallers
- 9 pump operators
- helibase and aircraft ramp personnel
- retardant mixing personnel,
- any other personnel exposed on a regular basis to damaging noise levels.
- Other duties may require hearing protection as identified in a specific JHA.

44

Employees with a time weighted average exposure of 85 db or higher are required to be placed under a hearing conservation program as required by 29 cFR 1910.95—consult with local safety & heath personnel for specifics.

Neck Protection

6 Aramid fiber "shrouds" are not required PPE. If used, the shrouds must meet
7 the design and performance requirements identified in the NFPA 1977 Standard
8 on Protective Clothing and Equipment for Wildland Fire Fighting, 1998 ed.
9 If issued, shrouds should be used only in impending flash fuel or high radiant
10 heat situations and not routinely worn throughout the operational period, due to
11 increases in physiological heat stress.

12 13

Leg Protection

All chainsaw chaps will meet specification FS 6170-4F. All chainsaw operators must wear chainsaw chaps maintained as per the manufacturer's specifications.

15 16 17

18

Foot Protection

Personnel assigned to fires must wear all leather, lace-type work boots with non-slip (Vibram type), melt-resistant soles and heels. (Alaska exempt)The leather top must be at least 8 inches in height. To measure boots for compliance with national policy (8" tall) the boot will be measured from the bottom of the heel to the top of the boot.

22 23 24

25

26

27

28

29

30

31

The boots are a condition of employment for firefighting positions and are purchased by the employee prior to employment.

- FWS The leather top must be at least 8 inches in height, measured from the top of the heel. Red carded fire line permanent, temporary and seasonal Fish and Wildlife personnel will be provided with these boots from station funds not more often than every three years. Emergency or casual fire fighters will provide their own boots. Some refuge situations may require special footwear such as waders, hip boots, snake boots, etc.
- NPS Government funds will be utilized for purchase of wildland fire
 boots for those employees currently red carded/certified in positions which
 require wildland and prescribed fireline duties. The individual employee
 must be available to perform those duties when assigned; if not routinely
 available for park fire assignments, FIREPRO funds should not be used to
 purchase boots for that employee.
- NPS FIREPRO funds, not to exceed \$100 a pair, may be used to
 purchase or repair boots. Other government funds, such as from safety,
 protection or maintenance accounts, may also be used for purchase or to
 augment FIREPRO funds, dependent on local management direction.
 Costs to repair boots not damaged on fire should be charged to other
 appropriate accounts.
- NPS It is the responsibility of the local FMO to determine those
 employees requiring boots as personal protective equipment, and the
 frequency of necessary replacement or repair. Boots will be considered

Release Date: January 2005 06-9

similar to uniform items and will not be subject to cache item return, due to health, sanitation, and individual sizing considerations.

2

10

Respiratory Protection

The use of respiratory protection (e.g., dust masks, half-masks respirators) must be in compliance with agency safety and health regulations and OSHA's Respiratory Protection Standard 29 CFR 1910.134.

- **BLM** Managers and supervisors will not knowingly place BLM wildland firefighters in positions where exposure to noxious gases or chemicals would require the use of self-contained breathing apparatus.
- FS FSM 5135.3 Self-Contained Breathing Apparatus Wildland firefighters may use only an open-circuit, self-contained breathing 12 apparatus (SCBA) of the positive pressure type when smoke from vehicle, 13 dump, structure, or other non-wildland fuel fire cannot be avoided while 14 meeting wildland fire suppression objectives (29 CFR 1910.134, Respiratory Protection). If such an apparatus is not available, avoid 16 exposure to smoke from these sources. 17
- **FS** The acquisition, training, proper use, employee health surveillance programs, inspection, storage, and maintenance of an SCBA must comply 19 with the National Fire Protection Association Standard, NFPA-1981 and 20 29 CFR 1910.134I, and be justified by a Job Hazard Analysis. Where an 21 SCBA is approved, it may be carried only on a fire engine and its use must 22 be consistent with FSM 5130.2 and FSM 5130.3. 23

24

Fire Shelters

25 Fire shelters will be issued and carried in a readily accessible manner by all line personnel. Fire shelters will be inspected regularly, to ensure they meet agency 27 and manufacturer standards. "Training Shelters" will be deployed at required annual fireline safety refresher training. No "live fire" exercises for the purpose of fire shelter deployment training will be conducted. The deployment of shelters is to be viewed as a last resort, and will not be used as a tactical tool. Supervisors and firefighters must never rely on fire shelters instead of using 32 well-defined escape routes and safety zones. When deployed on a fire, fire 33 shelters will be left in place and not be removed pending approval of authorized investigators. 35

36

Specialized or non standard PPE

Specialized Personal Protective Equipment not routinely supplied by the agency required to perform a task safely must be ordered in accordance with agency 39 direction.

41

A risk assessment must be completed and reviewed by the Unit Safety Officer and supervisor's approval is required. Items must meet agency and industry standards for specific intended use. In the case of fire resistant clothing such as cold weather inner and outer wear all materials (cloth, zipper tape, thread) other

```
than "Velcro ®" must be certified inherently flame resistant by the manufacturer.

Fireline Safety
```

Incident Briefings

Fire managers must ensure that safety briefings are occurring throughout the fire
 organization, and that safety factors are addressed through the IC and

o communicated to all incident personnel at operational briefings. The

identification and location of escape routes and safety zones must be stressed. A

briefing checklist can be found in Appendix F and in the Incident Response

12 Pocket Guide (IRPG).

13

LCES will be used in all operational briefings and tactical operations as per the *Incident Response Pocket Guide (IRPG)*.

- LCES—A System for Operational Safety
- 17 L− Lookout(s)
 - C Communication(s)
- 19 E−Escape Route(s)
 - S Safety Zone(s)

20 21

Incident Safety Oversight

Agency administrators must be actively involved in the management of wildfires, and personally visit an appropriate number of escaped fires each year.

PPE is required for certain scenarios. Fire and aviation management staff can provide the appropriate PPE and guidance.

FS - Agency Administrator, Fire Program Managers, and/or Safety and
Health Program Managers shall conduct supplemental inspections on a
minimum of 10% of their unit's Type 3, 4, and 5 fires and document their
inspections in the incident records.

31

33

37

At least one person, operationally qualified at a level commensurate to the complexity of the incident, should be assigned the responsibility for safety oversight. Additional safety oversight may be requested when:

- A fire escapes initial attack or when extended attack is probable.
- There is complex or critical fire behavior.
 - There is a complex air operation.
- The fire is in an urban intermix/interface.

Every individual has the right to turn down unsafe assignments as well as be responsible in identifying alternative methods of accomplishing the mission.

41 Appendix G contains process for "How to Properly Refuse Risk".

42

Unit/Area Closures

Release Date: January 2005

Threats to public safety may require temporary closure of a unit/area, or a portion of it. When a fire threatens escape from the unit/area, adjacent

authorities must be given as much advance notice as possible in order to achieve orderly evacuation.

2

Standard Safety Flagging

The NWCG recommends the following Safety Zone/Escape Route flagging for wildland fire (prescribed and suppression) activities:

- Hot-pink flagging marked "Escape Route" (NFES 0566). Crews with colorblind members may wish to carry and utilize lime-green flagging in addition to the hot-pink flagging.
- Hazards. Yellow with black diagonal stripes, 1 inch wide (NFES 0267). If the above recommendation is not utilized on an incident, the incident 11 will need to identify the selected color and make known to all firefighters. 12

13

Unexploded Ordnance (UXO)

14 General guidance is as follows: If UXO is suspected, do not enter the area. Small arms (rifle and shotgun) munitions areas should be flagged and avoided 16 by fire personnel. For suspected larger munitions, the area must be avoided by 17 fire personnel and contact local law enforcement bomb squad or nearest Department of Defense agency. Each unit will determine which employees are authorized to enter known or potential hazardous substance release sites, and the 20 responsibility for these determinations remains with each Agency Administrator. 21 The general rule of UXO is, "if you did not drop it, do not pick it up, kick it or 22

hit it with equipment". 23

24 25

31

Hazardous Materials

Employees that discover any unauthorized waste dump or spill site that contains 26 indicators of potential hazardous substances (e.g., containers of unknown 27 substances, pools of unidentifiable liquids, piles of unknown solid materials, 28 unusual odors, or any materials out of place or not associated with an authorized 30 activity) should take the following precautions:

- Follow the procedures in the Incident Response Pocket Guide.
- Treat each site as if it contains harmful materials. 32
- Do not handle, move, or open any container, breathe vapors, or make 33 contact with the material. 34
- Move a safe distance upwind from the site.
- Contact appropriate personnel. Generally, this is the Hazardous Materials 36 Coordinator for the local office. 37
- BLM/FWS/NPS BLM requires that all field personnel complete a First 38 Responder Awareness training. All BLM firefighters are required to take 39 an annual refresher for Hazardous Material protocol. 40

Release Date: January 2005

41

- The following general safety rules shall be observed when working with 42 43 chemicals:
- Read and understand the Material Safety Data Sheets.
- Keep the work area clean and orderly.

- Use the necessary safety equipment.
- Label every container with the identity of its contents and appropriate hazard warnings.
- Store incompatible chemicals in separate areas.
- Substitute less toxic materials whenever possible.
- Limit the volume of volatile or flammable material to the minimum needed for short operation periods.
- Provide means of containing the material if equipment or containers should break or spill their contents.

10

11 Heat Stress

There are three forms of heat stress. The mildest is heat cramps. Heat stress can progress to heat exhaustion and eventually heat stroke. Heat stroke is a medical emergency. Delayed treatment can result in brain damage and even death. At the first sign of heat stress, stop work, get into the shade, and begin drinking fluid. See Chapter 05 of Fitness and Work Capacity, 2nd ed. (1997).

17 18

Smoke and Carbon Monoxide

For information of this subject call USDA Forest Service, Technology and Development Program, Publications, (406) 329-3978, and ask for *Health Hazards of Smoke, Recommendations of the Consensus Conference, April 1997 (item Number 97512836).* Copies are available free of charge in limited numbers.

24 25

Six Minutes for Safety Training

It is recommended that daily "Six Minutes for Safety" training be conducted that focuses on high-risk, low frequency activities that fire personnel may encounter during a fire season.

29

A daily national "Six Minutes for Safety" briefing can be found at www.nifc.gov and in the National Situation Report.

32

33 Safety for Non-Operational Personnel Visiting Fires

A wide variety of personnel such as Agency Administrators, other agency personnel, dignitaries, members of the news media, etc. may visit incidents. The following standards apply to all visitors.

37

41

Visits to an Incident Base

The minimum recommendation for PPE at an incident base is the same as all field locations.

- Lace-up shoes with non-slip soles and heels
- Long trousers
- 43 Long-sleeve shirt
- For agency personnel, the field uniform is excellent; however for more flexibility the aramid fire shirts and trousers or flight suit may be worn.

BLM - Refer to BLM Handbook 1112-2, 3.3 BLM requires 6" shoes.

Visits to the Fireline

Visits to the fireline must have the approval of the IC. 4

- Visitors must maintain communications with the DIVS or appropriate fireline supervisor of the area they are visiting.
- Required PPE:
 - 8-inch high, lace-type leather work boots with non-slip (Vibram type), melt resistant soles and heels. (Alaska Exempt) To measure boots for compliance with national policy (8" tall) the boot will be measured from the bottom of the heel to the top of the boot.
 - Yellow aramid shirts
 - aramid trousers
 - hard hat with chinstrap
 - leather gloves
 - fire shelter
 - hand tool
 - water canteen

18 19 20

21

22

23

24

25

26

27

28

29

30

31

32

34

36

37

39

10

11

12

13

14

15

16

17

Visitors to the Fireline may be "Escorted" or "Non-Escorted" depending on the following requirements:

Non-Escorted

- Visitors must have a physical fitness level of "light."
- Must have adequate communications and radio training.
- Annual Fire Safety Refresher Training.
- Completed the following training:
 - Introduction to Fire Behavior (S-190)
- Firefighter Training (S-130)

Other non-escorted support personnel

- Incident personnel involved in vehicle operations on established roadways and working in areas which pose no fire behavior threat.
- Annual Fire Safety Refresher Training.

Escorted personnel 33

- All non-incident, non-agency, visitors lacking the above training and physical requirements must be escorted while on the fireline.
- \triangleright Visitors must receive training in the proper use of PPE.
- \triangleright Visitors must be able to walk in mountainous terrain and be in good physical condition with no known limiting conditions.
- Escorts must be minimally qualified at the Single Resource Boss. Any deviation from this requirement must be approved by the IC.

40 41 42

Helicopter Observation Flights

Visitors who take helicopter flights to observe fires must receive a passenger briefing and meet the following requirements: 44

45

06-14

Required PPE:

- > Flight helmet
- Leather boots
- Fire-resistant clothing
- All leather or leather and aramid gloves

6 • Training Requirements

For agency personnel, training requirements can be met by any of the following courses:

- ➤ A-101 Aviation Safety
- ➤ S-270 Basic Air Operations
- S-271 Interagency Helicopter Training

11 12

10

Occasional passengers/visitors have no training requirement, but a qualified flight manager must supervise loading and unloading of passengers.

Fixed-Wing Observation Flights

17 Required PPE

• No PPE is required for visitors and agency personnel who take fixed-wing flights to observe fires. However, a passenger briefing is required, and the flight level must not drop below 500 feet AGL.

20 21 22

23

24

18

19

Training Requirements

- For agency personnel, training requirements can be met by any of the following courses:
 - ➤ A-101 Aviation Safety
 - > S-270 Basic Air Operations

26 27

8 SAFENET

SAFENET is a form, process, and method for reporting and resolving safety concerns encountered in wildland fire, prescribed fire, or all risk operations.
The information provided on the form will provide important, safety-related data to the National Interagency Fire Center, and determine long-term trends and problem areas.

The objectives of the form and process are:

- To provide immediate reporting and correction of unsafe situations or close calls in wildland fire.
- To provide a means of sharing safety information throughout the fire community.
- To provide long-term data that will assist in identifying trends.
- Primarily intended for wildland and prescribed fire situations, however,
 SAFENET can be used for training and all-risk events.

42

- Individuals who observe or who are involved in an unsafe situation shall initiate corrective actions if possible, and then report the occurrence using SAFENET.
- You are encouraged, but not required, to put your name on the report.

- Prompt replies to the originator (if name provided), timely action to correct the
- problem, and discussion of filed SAFENETs at local level meetings encourage
- 3 program participation and active reporting.
- 4 SAFENET is not the only way to correct a safety-related concern or it does not
- replace accident reporting or any other valid agency reporting method. It is an
- efficient way to report a safety concern. It is also a way for front line
- firefighters to be involved in the daily job of being safe and keeping others safe,
- by documenting and helping to resolve safety issues. SAFENETs may be filed:
 - electronically at www.nifc.gov, (click on the safety link and follow directions to SAFENET)
- postage paid mail-in form (PMS 405-2, NFES 2633)
- verbally by telephone at 1-888-670-3938.
- 13 Appendix H contains the SAFENET form.

15 Accident/Injury Reporting

The Occupational Safety and Health Administration (OSHA) mandate that all accidents and injuries be reported in a timely manner. This is important for the following reasons:

- 19 To protect and compensate employees for incidents that occur on-the-job.
- To assist supervisors and safety managers in taking corrective actions and establish safer work procedures.
 - To determine if administrative controls or personal protective equipment are needed to prevent a future incident of the same or similar type.
- To provide a means for trend analysis.

25

27

29

32

33

34

35

36

22

23

10

11

14

17

18

Employees are required to immediately report to their supervisor every jobrelated accident or incident. Managers and supervisors shall ensure that an appropriate level of investigation is conducted for each incident and record all personal injuries and property damage. Reporting is the responsibility of the injured employee's home unit regardless of where the accident or injury occurred. Coordinate with your human resources office or administrative personnel to complete appropriate Officer of Worker's Compensation (OWCP) forms.

- DOI employees will report accidents using the Safety Management Information System (SMIS) at www.smis.doi.gov within six working days of the incident.
- Forest Service employees will use the Safety and Health Information Portal System (SHIPS) through the Forest Service Dashboard at https://asp.talx.com/dashboard/usdafs/ within six working days of the incident.

41 42

Critical Incident Management

- The National Wildfire Coordinating Group has published the *Agency*
- 44 Administrator's Guide to Critical Incident Management (PMS 926, NFES 1356).
- The guide is a series of subject-area checklists designed to be reviewed in detail

Release Date: January 2005

before a critical incident occurs, during the actual management of the incident,

- $_{2}$ and after the incident has taken place. It is a compilation of lessons learned and
- suggestions that are designed to assist an Agency Administrator in the
- management of a critical incident. The guide is not intended to replace local
- emergency plans or other specific guidance that may be available, but should be
- 6 used in conjunction with existing SOPs. It is available through the Publications
- 7 Management System, National Interagency Fire Center.